IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF TEXAS

VIA TRANSPORTATION, INC.   )
)

        Plaintiff,   )
)

        v.   )   Civil Action No. 6:21-cv-00457
)

RIDECO INC.,   )   **JURY TRIAL DEMANDED**
)

        Defendant.   )
)
)

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Via Transportation, Inc. ("Via"), by and through its undersigned counsel, submits this Complaint and alleges against RideCo, Inc. ("RideCo") as follows:

INTRODUCTION

1. This is a civil action for patent infringement of arising under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq*. RideCo has infringed and continues to infringe Via's U.S. Patent No. 9,562,785, U.S. Patent No. 9,816,824, U.S. Patent No. 10,197,411, and U.S. Patent No. 10,677,604 (collectively, "the Asserted Patents"). Via is the legal owner by assignment of the Asserted Patents, which were duly and legally issued by the United States Patent and Trademark Office. Via seeks injunctive relief and monetary damages.

2. Via is a pioneer in the development of dynamic, "virtual bus stop" transportation routing technology. Via's proprietary technology allows for dynamic real-time routing and demand aggregation to direct vehicle fleets to "virtual bus stops" at both the pick-up and drop-off points. Via's system significantly increases efficiency and lowers costs, both for transit providers and riders. Via's technology has been a significant component in building what is now called the

"microtransit" industry. Via pioneered this industry by providing the digital infrastructure for public mobility systems, optimizing networks of dynamic shuttles, buses, wheelchair accessible vehicles, and autonomous vehicles to meet the needs of large cities and smaller communities around the world. Via has over 200 partnerships and operates in over 20 countries and has deployed in over 100 cities, including New York, Berlin, Zurich, Tokyo, Tel Aviv, and Dubai. These deployments have included providing first/last mile, school bus, transit desert, paratransit, and non-emergency medical transportation solutions.

3.   Defendant RideCo is a competitor to Via in the microtransit industry. Unable to compete fairly, RideCo has launched a business strategy of copying Via in the marketplace. As set forth in detail below, RideCo's competing services have and continue to infringe several of Via's patented technologies. RideCo's infringement has been knowing and willful. Not only does RideCo offer to sell services that clearly infringe Via's patents, RideCo goes beyond and copies the structure and content of Via's promotional website and related marketing materials. RideCo even copies Via's distinctive blue map pin logo in its own logo as part of its efforts to compete unfairly with Via.

4.   RideCo touts to potential customers that it offers the same services and technology as Via; however, RideCo can only do so by infringing Via's patents. RideCo should not be permitted to use Via's patented technology to compete against it in the marketplace. Via brings this action to stop RideCo's continuing infringement of its technology, as well as for compensatory and exemplary damages.

THE PARTIES

5.   Plaintiff Via is a Delaware corporation with its principal place of business at 10 Crosby Street, 2nd Floor, New York, New York 10013.

6.   Upon information and belief, RideCo is a Canadian corporation with its principal place of business at 279 Weber St N Suite 101, Waterloo, ON Canada N2J 3H8.

JURISDICTION AND VENUE

7.   This Court has subject matter jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a).

8.   RideCo is subject to this Court's personal jurisdiction at least because, on information and belief, RideCo operates and deploys its vehicles for metropolitan transit service in San Antonio, Texas. *See* https://blog.rideco.com/via-metro-case-study-microtransit-replaces-buses-in-low-density-area-69b5f6b3815.

9.   In addition, RideCo is subject to this Court's personal jurisdiction because, on information and belief, RideCo has engaged in and does engage in continuous, systematic, and substantial activities throughout the United States and within this District. RideCo has infringed and continues to infringe Via's patents in this District by, among other things, engaging in infringing conduct within and directed at or from this District (e.g., in San Antonio[1]) and purposely and voluntarily offers its infringing services in this District and has committed acts giving rise to Via's claims for patent infringement within and directed to this District.

10.   Venue is proper in this District pursuant to 28 U.S.C. §§ 1391. Because RideCo is a foreign corporation it may be sued in any jurisdiction in which it is subject to personal jurisdiction, as RideCo is in this District.

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[1] https://blog.rideco.com/via-metro-case-study-microtransit-replaces-buses-in-low-density-area-69b5f6b3815?gi=15c21427b267.

STATEMENT OF FACTS

Via's Patented Technology

11.   Since 2012, Via has been working to reinvent public transit using its proprietary and innovative on-demand transit technology. To do so, Via has committed considerable resources to develop its technology and protect it, with Via having over 30 patent applications currently pending worldwide, and 8 US issued patents to date. Traditionally, public transportation has offered fixed routes with preset stops, fixed schedules, and with little consideration for the starting location of individual riders, their walk time to and from those stops, or vehicle efficiency and rider utilization. On the other hand, taxis and conventional ride-hailing apps typically provided private rides to single persons and routed directly from the rider at their requested pick-up location to their requested drop off location (door-to-door service), resulting in increased traffic, high costs, and decreased efficiency.

12.   Via helped upend these rigid paradigms with its foundational "virtual bus stop" technology. With Via's "virtual bus stop" technology, Via riders are often asked to walk a reasonable walking distance to a pick-up point designated by the Via system in order to make the route more efficient. This allows riders to efficiently share on-demand rides, but without the requirement that the vehicle go down every side street, one-way street, or residential detour to pick up and drop off riders door-to-door. Via's system significantly increases efficiency and lowers costs. Via's technology further allows dynamic real-time routing and demand aggregation to route vehicle fleets to "virtual bus stops" at both the pick-up and drop-off points. Typically, riders are picked up and dropped off seamlessly without taking riders too far out of their way to accommodate other riders, enabling a high volume of riders while using a fraction of the number of vehicles that are used by taxi services or on-demand ride-hail services.

13.   Via's "virtual bus stop" technology is an essential part of what Via refers to as the "Operating System" for on-demand shuttles and dynamic transit systems. As described by Via in a public post from 2018:

> At Via, we refer to this software layer, which dynamically routes vehicles and matches them with passengers requesting rides, as the "Operating System" for on-demand shuttles. We have been hard at work building this Shuttle Operating System for nearly five years.
>
> To operate efficiently, the Shuttle OS needs to: (1) automatically identify riders whose routes overlap, so they can share a single shuttle without creating any detours; (2) match those riders with the most suitable nearby shuttle; and (3) direct that shuttle along the fastest route to pick up and drop off its passengers. Solving this problem across thousands of vehicles and tens of thousands of riders, while also coordinating the seamless pickup and dropoff of each passenger, is a major computational and operational challenge that requires sophisticated algorithms and tremendous amounts of data.

https://ridewithvia.com/news/building-operating-system-future-transportation/ (posted Jan. 31, 2017).

14.   As Via and its partnerships with private and public transit operators grew all over the globe, Via became a leader in what is now called the microtransit industry:

> In contrast to those early services, today's microtransit means real-time dynamic routing that can change on a moment's notice, allowing riders to go anywhere in the service zone on-demand. Passengers usually walk a block or two and catch a ride at a "virtual bus stop" — boarding at a common corner avoids unnecessary detours and makes the service much more effective.
>
> Along the passenger's route, sophisticated dynamic routing algorithms use real-time, on-the-ground information to add other people traveling in the same direction into the same vehicle. Riders are picked up and dropped off in an endless stream. This translates into a ride that's extremely efficient, environmentally friendly, and financially smart.

https://ridewithvia.com/resources/articles/what-is-microtransit/ (posted Aug. 13, 2020).

15.   Via continues its commitment to transportation innovation today, as described on its website:

What we do

Via has developed and deployed the world's first **operating system** for **on-demand dynamic public transit**.

Leveraging advanced algorithms based on **big data**, **artificial intelligence** and **machine learning**, the operating system dynamically calculates the routes, timing, pickup and drop-off points **in real-time**. Our system transforms today's public transportation into an efficient service, customized for every rider.

https://engineering.ridewithvia.com/#whatwedo.

16.   As Via grew in scale, it pioneered the "TransitTech" category by providing the digital infrastructure for public mobility systems, optimizing networks of dynamic shuttles, buses, wheelchair accessible vehicles, and autonomous vehicles to meet the needs of large cities and smaller communities around the world. At the intersection of transportation and technology, Via combines software innovation with sophisticated service design and operational expertise to

fundamentally improve the way the world moves by building the world's most efficient, equitable, and sustainable transportation network for all riders. https://ridewithvia.com/news/via-acquires-remix-to-create-the-first-end-to-end-transittech-solution-for-cities-and-transit-agencies/.

17.   Because of Via's innovations in on-demand transit services and software, transit operators and cities all over the world have partnered with Via to offer on-demand transit services. Via currently operates its on-demand ridesharing platform in over 20 different countries including 50 cities in North America, 39 cities in Europe, 10 cities in the Middle East, 7 cities in Australia and New Zealand, 4 cities in Asia, and 3 cities in South America. Via has deployed its services internationally in major cities including New York, Chicago, London, Berlin, Zurich, Tokyo, Singapore, Tel Aviv, and Dubai. Via has over 200 partnerships, which has allowed it to service over 70 million rides globally.

18.   Via's history of innovation in on-demand transit mobility has resulted in a world-class patent portfolio, with 8 US patents issued to date, including patents covering the virtual bus stop technology. Via has at least 35 additional patent applications currently under review before the United States Patent & Trademark Office ("USPTO") and other patent offices around the world.

Defendant RideCo's Willful Infringement of Via's Patented Technology

19.   RideCo purports to offer on-demand transit software and solutions in competition with Via. For instance, RideCo responds to RFPs from potential customers by claiming it offers the same technology offered by Via. The technology RideCo offers, however, plainly infringes Via's patents. As set forth in detail below in Counts I through IV, RideCo's offers and the services it provides constitute willful infringement of the Asserted Patents.
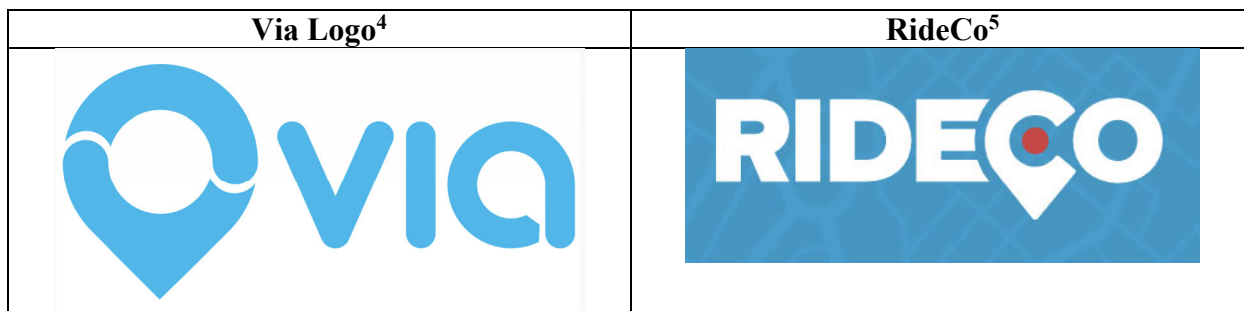
20.   In addition to copying RideCo's patented technology, RideCo has blatantly copied many other aspects of Via's business. For example, RideCo has copied the style and language directly from Via's website in an effort to style itself as a copy of Via's services and products:

Via's Website (first published approx. Jan. 2020)[2]	RideCo's Website (first published approx. July 2020)[3]
POWERING THE WORLD'S MOST ADVANCED PUBLIC MOBILITY SYSTEMS.	We power the world's next generation transit system
Service Model Design We will help you review existing conditions, simulate service options, and design a customized service that works for your unique situation.	**SERVICE DESIGN** We will analyze your transit network and data to design a bespoke service model collaboratively with your team.
Launch Planning & Support Our launch team will be on the ground, in your community, to ensure service launch goes off without a hitch.	**LAUNCH SUPPORT** Our project team will provide a seamless transition, comprehensive training, and hands-on support.
Performance Optimization Our data science team will crunch the numbers to ensure the service continues to fire on all cylinders.	**PERFORMANCE OPTIMIZATION** Our client success team will proactively make service improvement recommendations and work to consistently improve service metrics to exceed KPI goals.

21.   RideCo's logo even uses similar coloring and a similarly shaped map marking pin, further evidencing RideCo's attempts to copy Via and create brand confusion.

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[2] https://web.archive.org/web/20200111040446/https://ridewithvia.com/solutions/
[3] https://web.archive.org/web/20200810095105/https://www.rideco.com/

Via Logo[4]	RideCo[5]

22.   Furthermore, RideCo misrepresents its technological capabilities to lure customers to use its infringing version of Via's technology. For example, RideCo has repeatedly stated that its transit service in Los Angeles with LA Metro is "the world's largest on-demand transit system, with over 110 vehicles across 9 zones." https://blog.rideco.com/3-technologies-needed-to-start-your-transition-to-a-smart-city-46105d96f596. This statement is false. As is publicly stated on Via's website since 2018, Via has a vehicle fleet partnership with Berlin Verkehrsbetriebe (BVG) with a capacity to operate at *300 vehicles at full scale*. https://ridewithvia.com/news/viavan-and-bvg-launch-berlkonig-in-berlin/. At its peak (before the pandemic), Via operated a fleet of over 150 vehicles with BVG.

23.   Via brings this lawsuit to stop RideCo from unfairly competing with Via by willfully infringing Via's patents, copying Via's business, misrepresenting factual information in competing with Via and other means.

RideCo's Infringing Acts

24.   The Asserted Patents claim, *inter alia*, using virtual bus stops and dynamically routed vehicles to adaptively pick up and drop off riders on-demand that are headed in the same general direction. As set forth below, RideCo's infringing application and service incorporates or

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[4]   https://web.archive.org/web/20140208060433/http://www.ridewithvia.com/
[5]   https://web.archive.org/web/20151005165457/http://www.rideco.com/

uses technology that is protected by the Asserted Patents owned by Via. RideCo has willfully used Via's patented technology without payment or authorization.

25.   The allegations provided below are exemplary and without prejudice to Via's infringement contentions. In providing these allegations, Via does not convey or imply any particular claim constructions or the precise scope of the claims. Via's claim construction contentions regarding the meaning and scope of the claim terms will be provided under the Court's scheduling order.

26.   As provided in more detail below, each element of at least one claim of each of the Asserted Patents is literally present in RideCo's product or is literally practiced by the processes implemented in RideCo's service. To the extent that any element is not literally present or practiced, each such element is present or practiced under the doctrine of equivalents.

COUNT I: Infringement of U.S. Patent No. 9,562,785

27.   Via incorporates by reference and re-alleges the foregoing paragraphs as if fully set forth herein.

28.   On February 7, 2017, the United States Patent and Trademark Office issued U.S. Patent No. 9,562,785, entitled "Continuously updatable computer-generated routes with continuously configurable virtual bus stops for passenger ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof" ("the '785 patent"). A true and correct copy of the '785 patent is attached hereto as Exhibit A.

29.   Via is the sole owner of all right, title, and interest in and to the '785 patent, with full and exclusive right to bring suit to enforce the '785 patent, including the right to recover for past damages and/or royalties.

30.   The '785 patent claims priority to U.S. Provisional Application No. 62/194,651 filed on July 20, 2015.

31.   The '785 patent is valid and enforceable.

32.   The inventions disclosed in the '785 patent enable one to transport multiple riders sharing rides in multiple vehicles while being able to dynamically change virtual bus stop locations, pick-up and drop-off locations, vehicle and rider assignments, and vehicle routes. For example, in some embodiments, the '785 patent discloses continuously updatable computer-generated routes with continuously configurable virtual bus stops for ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof.

33.   The '785 patent addresses a technical problem. Mass public transit is typically based on rigid schedules, fixed stops, and fixed routes. It is also often very crowded, requires riders to wait long periods of time for buses, and may require riders to walk a significant distance from their desired origination or destination points to fixed-route bus stops. Furthermore, door-to-door ridesharing applications do not optimize routes to, for example, avoid making a significant detour to pick up and drop off other riders. They are also more expensive for each user and do not utilize virtual bus stops such that riders walk to and from dynamically designated locations to further optimize each riders' and vehicles' route time and efficiency, taking into account multiple variables, such as traffic speeds, street closures, turn restrictions, and one-way streets.

34.   The '785 patent claims specific ways to solve these problems with the use of virtual bus stops as dynamically determined and selected pick-up and drop-off points that users can walk to near their origination point and destination point, by dynamically and simultaneously analyzing

various factors for all riders, routes, and vehicles, and by dynamically routing riders and vehicles using innovative algorithms, tools, and application programming interfaces.

35.   In particular, Claim 6 of the '785 patent, by virtue of its dependency from claim 1 recites, among other things, "electronically receiving, in real-time" "a plurality of electronic riding requests" "wherein each riding request" includes "an origin location data" and "a destination location data" and for each of those requests "electronically assessing, in-real time" "at least one grid of virtual bus stops for at least one geographic locale" and recites "dynamically selecting, in real-time…a subset of candidate virtual pickup bus stops and a subset of candidate virtual dropoff bus stops" based at least in part on various "walking distance[s]." It further recites, among other things, electronically receiving location information for all vehicles and "electronically assessing, in real-time" "current ride-sharing data which are representative of current routes and current virtual bus stops associated with" "at least one hundred riding passengers" and recites "dynamically determining, in-real time" candidate vehicles for all of the riders based at least in part on the subset of virtual bus stops and "the current ride-sharing data and the current vehicle location data." By virtue of its dependency from claim 1, claim 6 further recites, among other things, "dynamically determining, in real-time" an assigned vehicle and a pair of virtual bus stops for each rider based at least in part on "maximizing vehicle occupancy to be at least two ride-sharing passengers," minimizing at least one of various factors including duration of time each rider spends in a vehicle, waiting for a vehicle to arrive, walking to or from a virtual bus stop, or being delayed by traffic, and the order in which new virtual bus stops are inserted into an existing route. By virtue of its dependency from claim 1, claim 6 recites, among other things, "dynamically generating, in real-time" updated route schedules, displaying assigned pick-up stops for each rider, displaying updated routes in each vehicle, "continuously tracking, in real-time, by the at least one

specifically programmed computer processor, the current vehicle location and the current ride-sharing data," "dynamically reassigning, by the at least one specifically programmed computer processor, the assigned virtual pickup bus stop task from the first assigned vehicle to the second assigned vehicle" and "dynamically revising, by the at least one specifically programmed computer processor" both first and second updated route schedules.

36.   RideCo has infringed and continues to infringe, directly and/or indirectly, the '785 patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and operating within the United States without authority its RideCo application and services.

37.   RideCo's application and service infringes at least Claim 6 of the '785 patent at least in the exemplary manner described below, which is not intended to limit Via's right to allege that other activities of RideCo infringe the identified claims or any other claims of the '785 patent or any other patents.
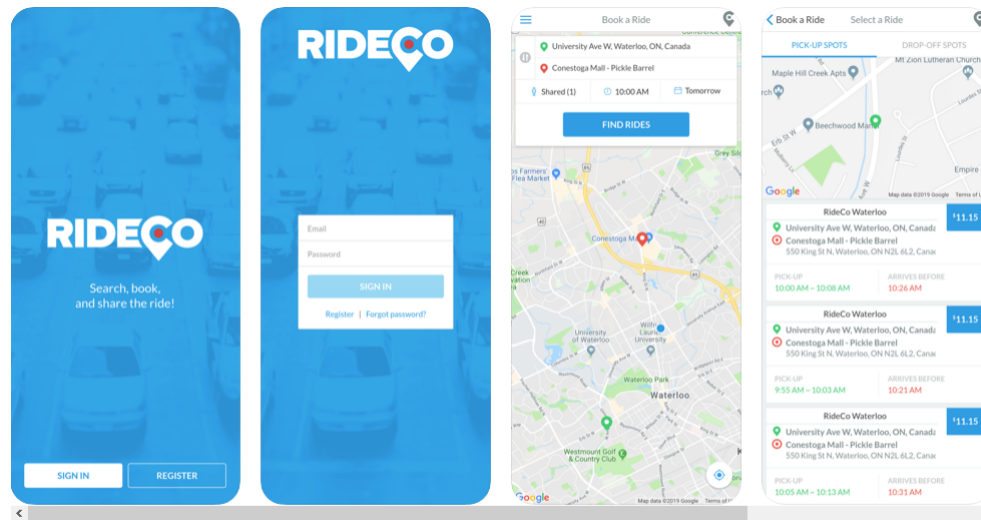
38.   RideCo offers and performs "[a] computer-implemented method," specifically by offering computer-implemented on-demand transit software solutions, including its rider application. *See, e.g.* https://www.rideco.com/ :

ON-DEMAND TRANSIT SOFTWARE & SOLUTIONS

See also, *e.g.*: https://apps.apple.com/ca/app/rideco/id983311848

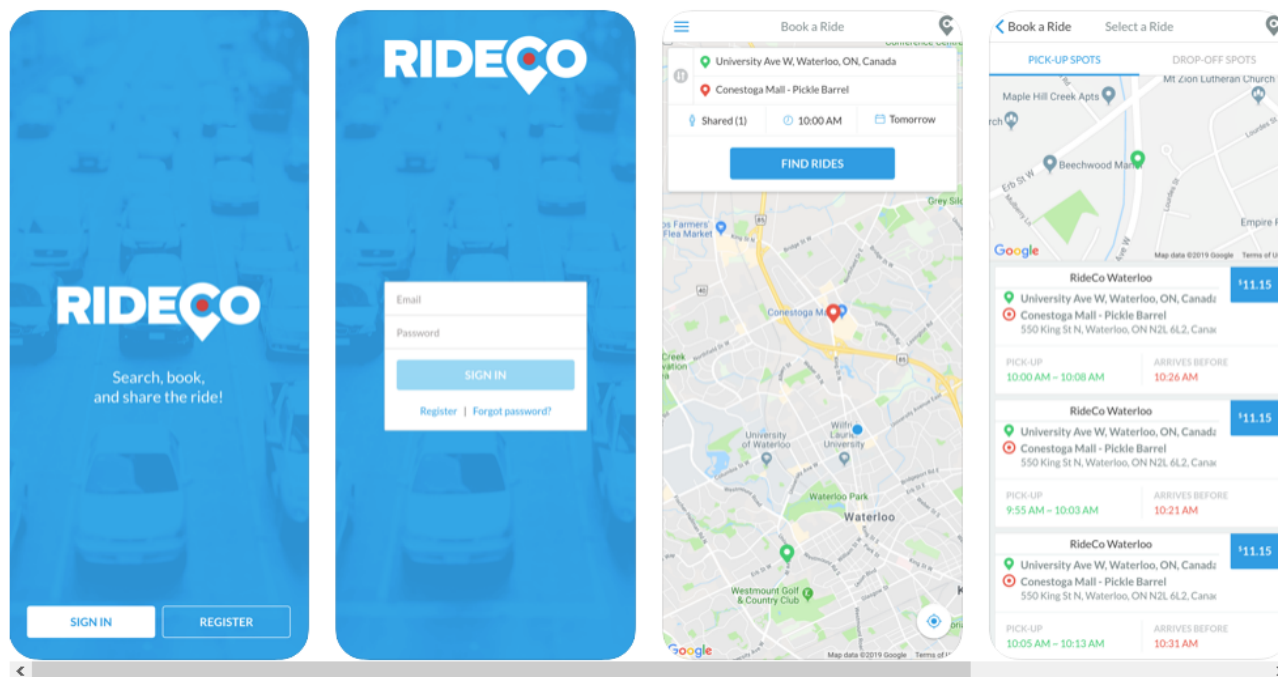**Screenshots** iPhone iPad

RideCo lets you book personalized, express transit. Our technology will do the work to schedule professional transportation to fulfill your ride booking. What is unique is that you will share that ride with other passengers, therefore making it affordable—near to the cost of driving yourself. RideCo's technology ensures that your ride will be fast, without ever being too crowded.

39.   RideCo's application "electronically receiv[es], in real-time, by at least one specifically programmed computer processor, via at least one computer network, a plurality of electronic riding requests from a plurality of electronic computing devices operated by a plurality of ride-sharing requesting passengers; wherein each electronic riding request from each ride-sharing requesting passenger comprises: an origin location data identifying a passenger-requested origin point, and a destination location data identifying a passenger-requested destination point." The RideCo rider application, available on at least the Apple and Google app stores, allows multiple users to electronically request rides through each user's individual electronic computing device, such as a mobile phone. The ride request includes origin location data that identifies a rider-requested origin point and/or where the request originated and includes destination location data that identifies the rider-requested destination point. This is shown for example in the screenshots below from RideCo's application available on the Apple app store, where each user is prompted to enter origin and destination location data either using an address or a selection on the map (https://apps.apple.com/ca/app/rideco.id983311848):
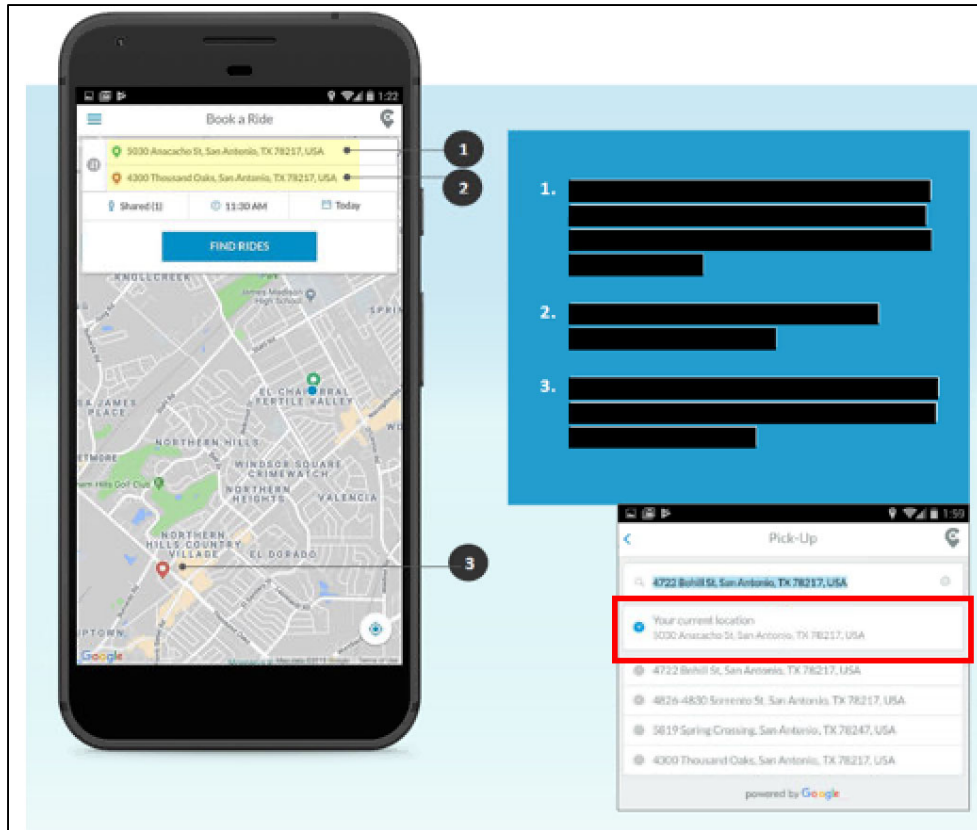
- 14 -

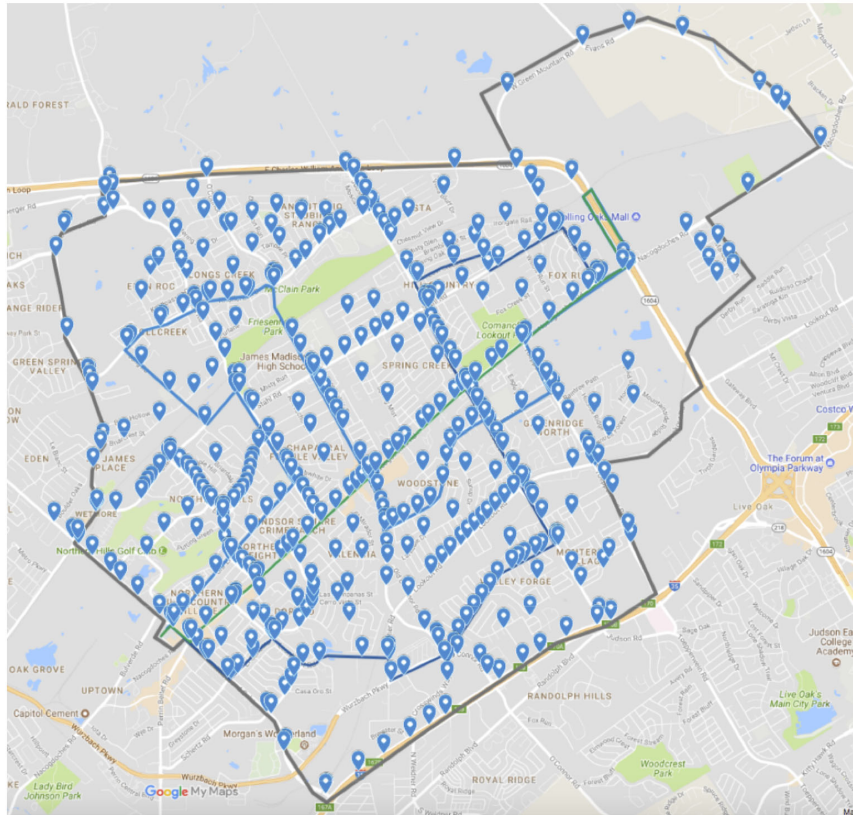This is also shown in the annotated screenshots below from Exhibit F at 10:
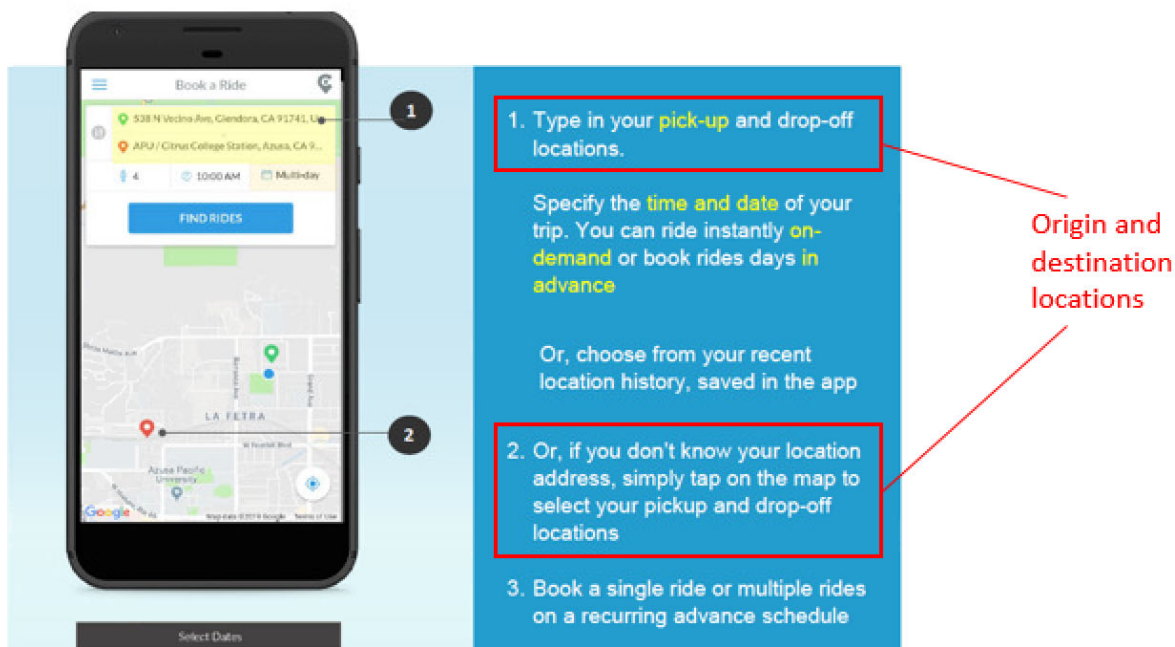
Plus, the RideCo application identifies or maps the addresses for pick-up and drop-off locations, as shown in the screenshots below from Exhibit I at 30 (annotated):

On information and belief, the electronic ride requests are received by a computer processor on a computer network.

40.   "For a particular electronic riding request of a particular ride-sharing requesting passenger," RideCo "electronically access[es], in real-time, by the at least one specifically programmed computer processor, for at least one database, at least one grid of virtual bus stops for at least one geographic locale." RideCo uses designated pick-up/drop-off stops, which it refers to as "virtual stops," as shown in screenshots below from RideCo's blog postings:

Adding RideCo virtual stops in Innovation Zone 1 — San Antonio, Texas

https://blog.rideco.com/how-transit-operators-are-getting-on-board-with-microtransit-b0e65540f476. On information and belief, these virtual bus stops are stored in a database.

41.   With RideCo "each virtual bus stop corresponds to a geographic location point within the at least one geographic locale at which a particular ride-sharing requesting passenger can be picked up or drop off by a first assigned vehicle." As shown above, the virtual bus stops on the RideCo application are geographic points within a geographic locale where the user requesting a ride can be picked up or dropped off.

42.   RideCo "dynamically select[s], in real-time, by the at least one specifically programmed computer processor, from at least one grid of virtual bus stops for the at least one geographic locale, a subset of candidate virtual pickup bus stops and a subset of candidate virtual dropoff bus stops based, at least in part, on: i) a first absolute walking distance, being a distance

from the passenger-requested origin point to at least one candidate virtual pickup bus stop of the subset of candidate virtual pickup bus stops, and ii) a second absolute walking distance, being a distance from at least one candidate virtual dropoff bus stop of the subset of candidate virtual dropoff bus stops to the passenger-requested destination point." RideCo's virtual stops are selected to be within a short walk of the requester's location, and a RideCo user can select their location and be provided with a set of virtual stop options by the RideCo application. This is shown for example in the screenshot below from Exhibit F at 11 (annotated):
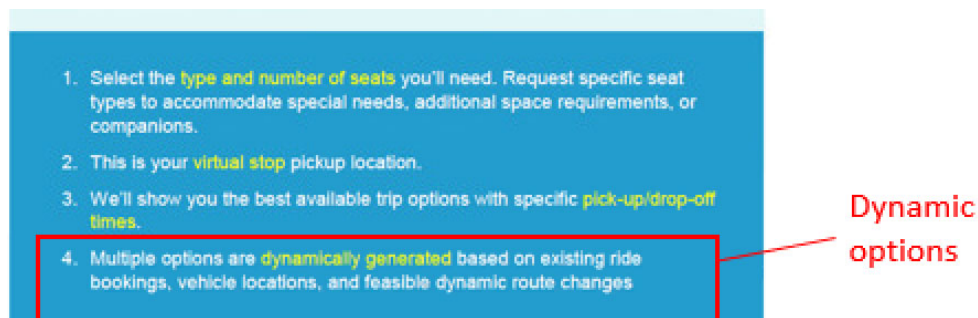

One of the factors that RideCo takes into consideration in selecting virtual stop options for a user is reducing walking distance for users to or from their virtual bus stops.

| Levers	Current transit rider experience	New transit rider experience with RideCo
Frequency of pickups and drop offs	Buses are scheduled to run every hour which can result in long wait times at the bus stop.	Pickups are available every 20 minutes at the virtual stops.
Distance to the virtual stop or use of door step	Bus stops are spread out and require a walk of 15 minutes or more depending on location.	The 400+ virtual stops are strategically located for an average walk of 4 minutes.
Travel Delay versus driving directly alone	The use of different routes within the zone may require transfers to get to destination.	Ridesharing means an extra 5 minutes spent in transit versus driving directly to destination.
Vehicle Type with the number of seats	Uses municipal buses with the possibility of not getting a seat, depending on ridership.	Use 5-seater vans and rides are only confirmed when seats are available.
Vehicle Quantity in the fleet	Three total buses are used to cover the different routes which limits service.	A fleet of five to eight vans from a local transportation company are used to maximize availability.

https://blog.rideco.com/how-transit-operators-are-getting-on-board-with-microtransit-b0e65540f476 (annotated). *See also* https://blog.rideco.com/how-rideco-reduced-long-distance-commute-times-by-50-for-staff-at-a-suburban-employer-c88f710b4591 (describing "virtual stops" "within a 5-minute walk" for efficiency).

43. RideCo "electronically receiv[es], in real-time, during a first time period, by the at least one specifically programmed computer processor, via the at least one computer network, current vehicle location data for a plurality of ride-sharing vehicles traveling within the at least one geographic locale, wherein the current vehicle location data comprise global positioning system (GPS) data generated by at least one GPS component of at least one electronic computing device associated with each ride-sharing vehicle." Upon information and belief, RideCo tracks its vehicles' location data in real-time, including using global positioning systems ("GPS"). For example, RideCo provides driver details to its users via the RideCo application and tracks the

location of the corresponding vehicle, as shown in the annotated screenshot below from Exhibit I at 34:
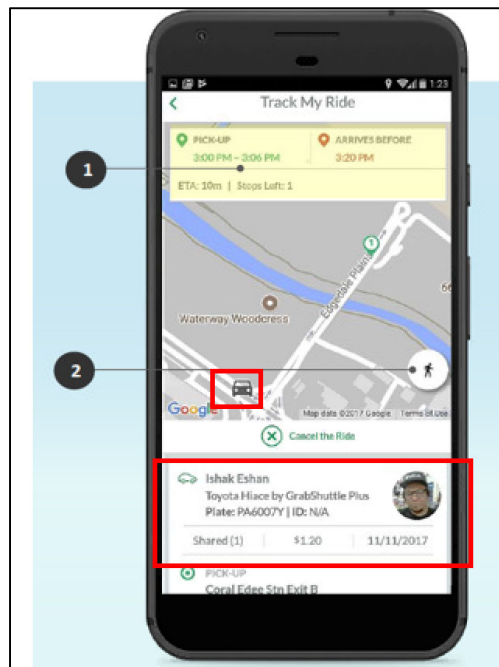
As another example, RideCo states that its "[r]iders use a mobile app to book rides, *view real-time driver locations and ETAs*, and communicate with drivers using the app." Exhibit E at 3. As a further example, RideCo is able to provide "continuous updates" regarding pick-up and drop-off times, remaining stops and potential delays, which shows that RideCo tracks its vehicles in real-time. *See, e.g.,* Exhibit F at 14:

- Get continuous updates regarding your pick-up or drop-off times, remaining stops, and potential delays
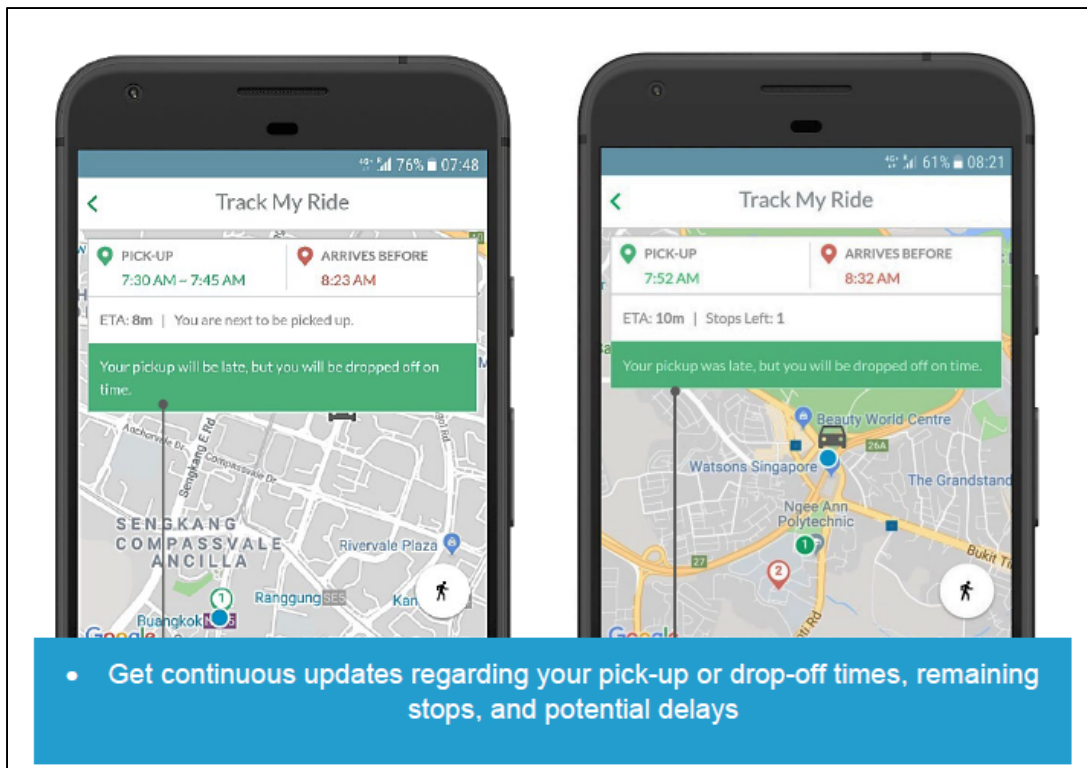
This is also shown in the following screenshot from RideCo's Frequently Asked Questions webpage, where RideCo states that "routes are adaptive—if traffic delays one car, another is re-routed to keep things moving on schedule," which shows that vehicle locations are tracked:

HOW IS RIDECO DIFFERENT FROM PUBLIC TRANSIT?

With RideCo, your fares cost more than public transit, but significantly less than taxi and even UberX. It is personalized express service, which means there are no transfers and you choose when and where you want to be picked up and dropped off. RideCo's technology ensures that your ride will be fast, without ever being too crowded. This is because the vehicles' routes, stops and times are dynamic based on passenger demand. Our technology platform builds optimized routes for our driver partners based on passenger demand and location. These routes are adaptive—if traffic delays one car, another is re-routed to keep things moving on schedule.

https://www.rideco.com/faq (emphasis added).

44. RideCo "electronically access[es], in real-time, by the at least one specifically programmed computer processor, current ride-sharing data which are representative of current routes and current virtual bus stops associated with a plurality of riding passengers who are currently riding in the plurality of ride-sharing vehicles." RideCo accesses, in real-time, current ride-sharing data that represents current routes and current virtual bus stops associated with

multiple users currently riding in multiple ride-sharing vehicles, as shown in the screenshot in Paragraph 43. https://www.rideco.com/faq. RideCo states on the same webpage that it "ensur[es]" that a rider travel with other riders "going in the same direction," which also requires accessing current ride-sharing data that represents current routes and current virtual bus stops associated with those riders (emphasis added):

> **DOESN'T SHARED-RIDES MEAN MY RIDE WILL TAKE LONGER?**
>
> Yes, but only by a few minutes. The delay is minimized by ensuring that you travel with passengers going in the same direction. Your ride has a set pickup and arrive-before time that you see at the time of booking. This way, you can rest assured that you will get to your destination on-time, at the time specified in your booking.

45.   RideCo's "plurality of riding passengers comprise[] at least one hundred riding passengers." For example, in San Antonio, Texas alone, RideCo "is currently serving 650+ passengers per weekday." https://blog.rideco.com/via-metro-case-study-microtransit-replaces-buses-in-low-density-area-69b5f6b3815.
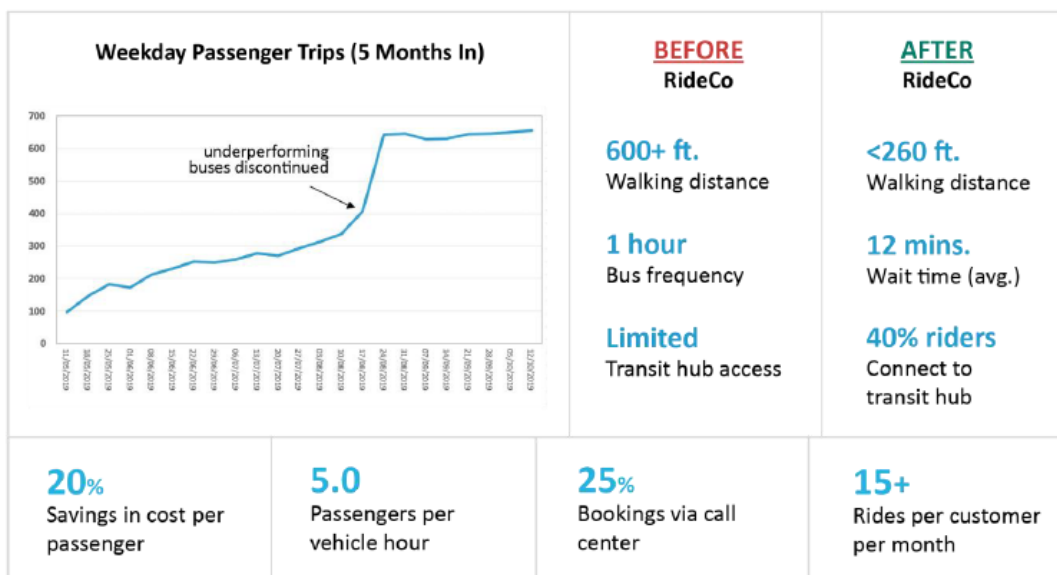
46.   RideCo "dynamically determin[es], in real-time, by the at least one specifically programmed computer processor, a plurality of candidate vehicles which can pick up the particular ride-sharing requesting passenger, wherein the determining of the plurality of candidate vehicles is based, at least in part on: the subset of candidate virtual pickup bus stops, the subset of candidate virtual dropoff bus stops, the current ride-sharing data and the current vehicle location data." For example, RideCo's Frequently Asked Questions webpage (https://www.rideco.com/faq) shows that RideCo determines in real-time a pick-up vehicle or potential vehicles at least in part based on current ride-share data, the closest virtual stop to both the pick-up and drop-off locations, and the current vehicle location data. RideCo dynamically routes those vehicles. *Id.*; *see* Exhibit E at 2. RideCo also uses current ride-sharing data and current vehicle data to improve metrics for riders. *See e.g.*: Exhibit I at 7-8:

Key Service Improvements

20% savings in cost per passenger	5.0 weekday pax/ vehicle hour	12-minute wait (avg.) & 4-minute walk
Compared to fixed route buses	30%+ superior to peer services	Previously: 60 minute frequency

See also Exhibit I at 8:[6]

RideCo is delivering the following improvements to VIA Metropolitan of San Antonio.

Weekday Passenger Trips (5 Months In) — underperforming buses discontinued

	BEFORE RideCo	AFTER RideCo
Walking distance	600+ ft.	<260 ft.
Bus frequency / Wait time (avg.)	1 hour	12 mins.
Transit hub access	Limited	40% riders Connect to transit hub

20% Savings in cost per passenger	5.0 Passengers per vehicle hour	25% Bookings via call center	15+ Rides per customer per month

47.   RideCo "dynamically determin[es], in real-time, from the plurality of candidate vehicles, by the at least one specifically programmed computer processor, 1) a first assigned vehicle for picking up the particular ride-sharing requesting passenger and 2) a pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger, based, at least in part, on: i) maximizing a vehicle occupancy to be at least two ride-sharing passengers in the first assigned vehicle at least a portion of a ride of the particular ride-sharing requesting passenger."   For example, RideCo states that it assigns a vehicle to each

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[6]   VIA Metropolitan referred to above is a mass transit agency serving San Antonio, Texas; it is completely unrelated to plaintiff Via.

requesting rider. https://www.rideco.com/faq. Also, RideCo advertises that "[w]hat is unique [about RideCo] is that you will share that ride with other passengers." Thus, a vehicle's occupancy is maximized to be at least two ride-sharing riders:

RideCo lets you book personalized, express transit. Our technology will do the work to schedule professional transportation to fulfill your ride booking. What is unique is that you will share that ride with other passengers, therefore making it affordable—near to the cost of driving yourself. RideCo's technology ensures that your ride will be fast, without ever being too crowded.

https://apps.apple.com/ca/app/rideco/id983311848. RideCo also states on its Frequently Asked Questions webpage that it "ensur[es]" that a passenger travel with other riders "going in the same direction," which also shows that vehicle occupancy is maximized to be at least two ride-sharing riders. http://www.rideco.com/faq.

48.   RideCo "dynamically determin[es], in real-time, from the plurality of candidate vehicles, by the at least one specifically programmed computer processor, 1) a first assigned vehicle for picking up the particular ride-sharing requesting passenger and 2) a pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger, based, at least in part, on…minimizing at least one of: 1) a first duration of time which each ride-sharing passenger spends in each candidate ride-sharing vehicle; 2) a second duration of time which each ride-sharing passenger spends waiting for each candidate ride-sharing vehicle to arrive at a respective virtual bus stop; 3) a third duration of time which each ride-sharing passenger spends walking from the passenger-requested origin point to a respective candidate virtual pickup bus stop and from a respective candidate virtual dropoff bus stop to the passenger-requested destination point; 4) a fourth duration of time which each candidate ride-sharing vehicle is held up in a traffic until a respective final virtual dropoff bus stop associated with the last ride-sharing passenger during a particular time period." For example, RideCo optimizes walking distance and

the time its riders spend waiting for a vehicle or walking to or from a virtual stop, as shown in the screenshots below from RideCo documents:

| BEFORE RideCo	AFTER RideCo
600+ ft. Walking distance	<260 ft. Walking distance

Exhibit H at 2.

| BEFORE	AFTER
30+ mins walk to nearest bus station	4 mins average walk to virtual stops

Exhibit J at 2. RideCo also states in a YouTube video by RideCo that it builds "optimized routes every day based on demand and customer location" and that the "routes are adapted to traffic delays." https://www.youtube.com/watch?v=xH10FbMhE_w. And RideCo states that "routes are adaptive—if traffic delays one care, another is re-routed…." https://www.rideco.com/faq.

49. RideCo "dynamically determin[es], in real-time, from the plurality of candidate vehicles, by the at least one specifically programmed computer processor, 1) a first assigned vehicle for picking up the particular ride-sharing requesting passenger and 2) a pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger, based, at least in part, on…an order in which a pair of candidate virtual pickup and dropoff bus stop tasks are inserted into a route schedule of existing pickup and dropoff virtual bus stop tasks associated with each candidate vehicle of the plurality of candidate vehicles." For example, RideCo states that it assigns a vehicle to each requesting rider. https://www.rideco.com/faq. Also, riders and drivers get continuous updates regarding a

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dynamically changing route, which means that a pair of virtual pick-up and drop-off bus stops are

inserted into an existing route schedule. *See* Exhibit E at 3; Exhibit F at 14:
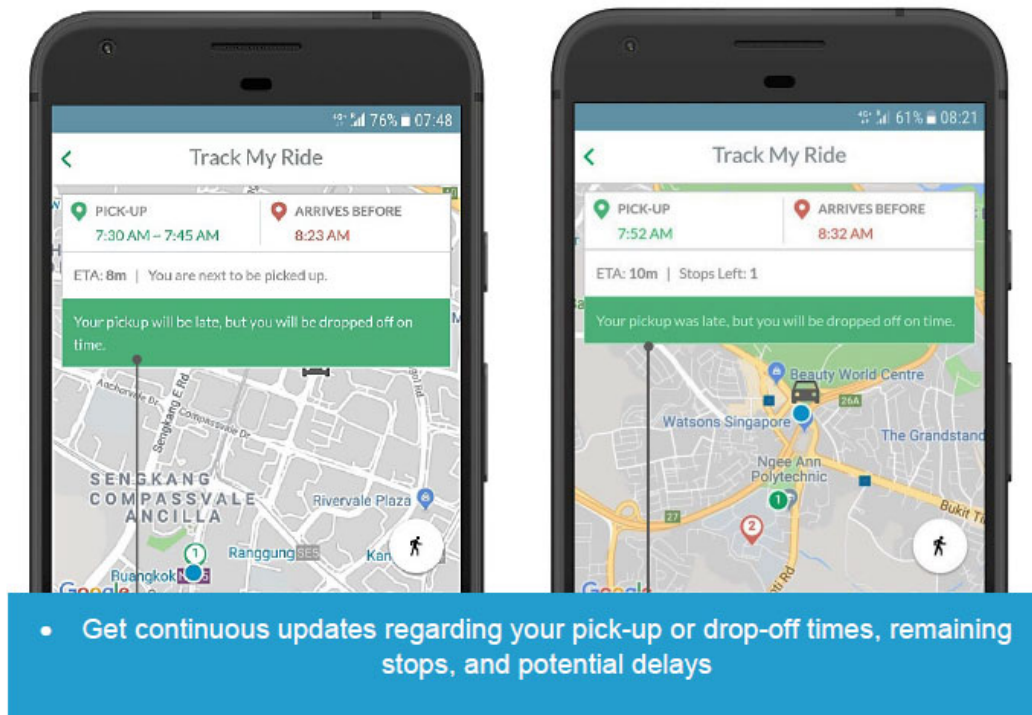

In addition, users requesting a ride are added to existing routes, as shown in the screenshots below:
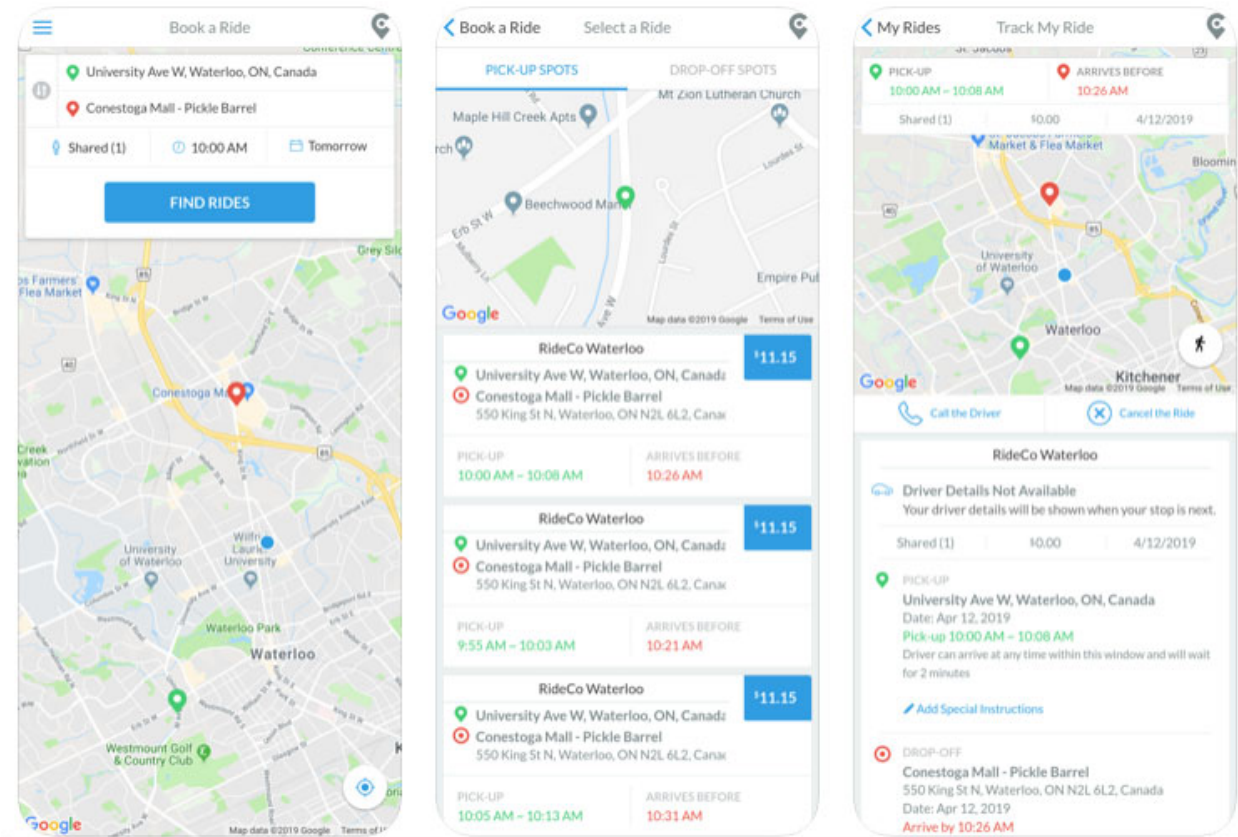
50.   RideCo "dynamically generat[es], in real-time, by the at least one specifically programmed computer processor, a route proposal for the first assigned vehicle, wherein the route proposal for the first assigned vehicle comprises a first updated route schedule, formed by inserting the pair of assigned virtual pick-up and drop-off bus stop tasks of the particular ride-sharing requesting passenger into an existing route schedule, comprising existing pickup and dropoff virtual bus stop tasks associated with the first assigned vehicle." For example, users requesting a ride are added to existing routes, showing that RideCo dynamically generates route proposals for an assigned vehicle.
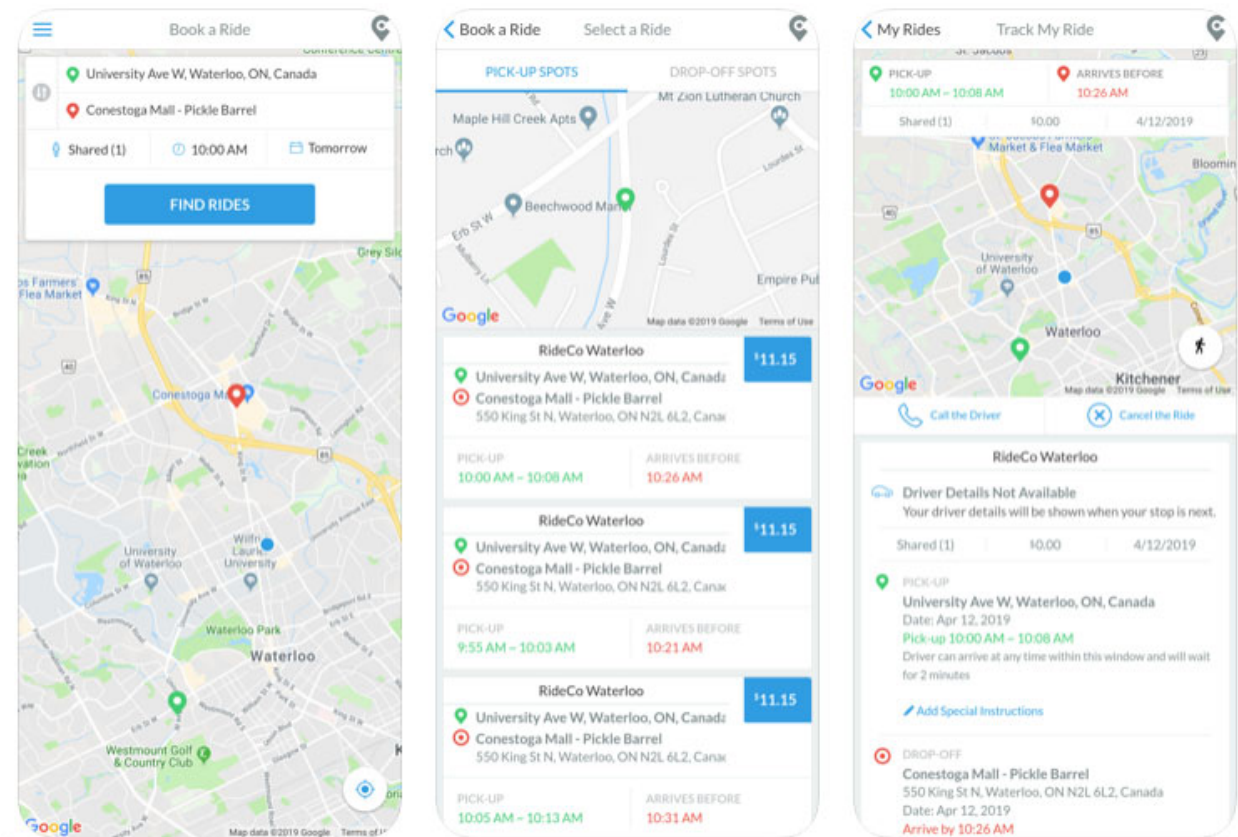
https://apps.apple.com/ca/app/rideco/id983311848. RideCo also advertises that "[w]hat is unique [about RideCo] is that you will share that ride with other riders," which further shows that route proposals are prepared by inserting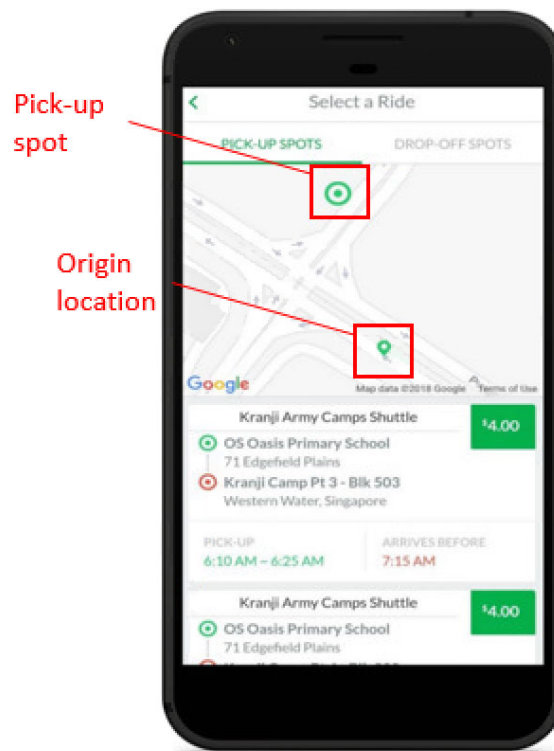 a pair of virtual stops into an existing route. https://apps.apple.com/ca/app/rideco/id983311848. RideCo also states on its Frequently Asked Questions webpage that it "ensur[es]" that a rider will travel with other riders "going in the same direction," which also shows that the route proposals are generated by inserting a pair of virtual stops into an existing route (http://www.rideco.com/faq) (emphasis added):

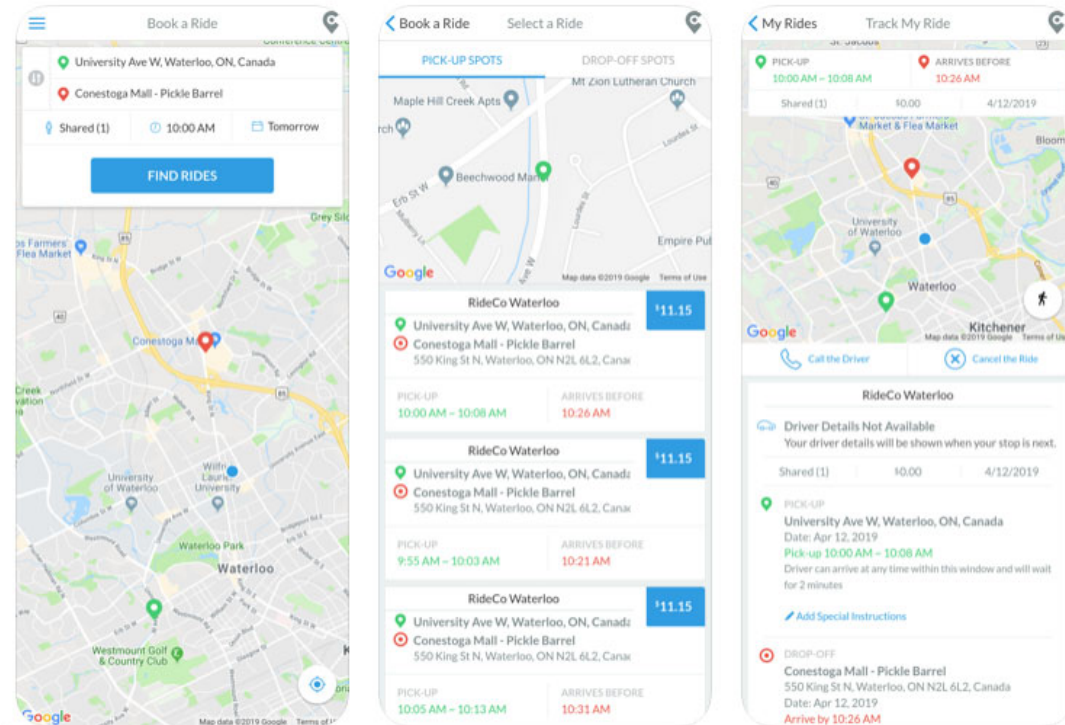**DOESN'T SHARED-RIDES MEAN MY RIDE WILL TAKE LONGER?**

Yes, but only by a few minutes. The delay is minimized by ensuring that you travel with passengers going in the same direction. Your ride has a set pickup and arrive-before time that you see at the time of booking. This way, you can rest assured that you will get to your destination on-time, at the time specified in your booking.

51. RideCo "electronically display[s], in real-time, via the at least one computer network, by the at least one specifically programmed computer processor, the assigned virtual pick

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-up stop on a screen of a first electronic computing device associated with the particular ride-sharing requesting passenger." For example, the RideCo application displays a rider's pick-up location on the user interface on the user's electronic computing device, *e.g.*, mobile phone, as shown in the annotated screenshot below:

https://blog.rideco.com/how-rideco-reduced-long-distance-commute-times-by-50-for-staff-at-a-suburban-employer-c88f710b4591.

https://apps.apple.com/ca/app/rideco/id983311848.

52.   RideCo "electronically display[s], in real-time, via the at least one computer network, by the at least one specifically programmed computer processor, the first updated route schedule on a screen of a second electronic computing device associated with the first assigned vehicle." For example, upon information and belief, RideCo also displays routes and updated routes on a driver's electronic computing device, *e.g.,* cellular phone. RideCo's routes are dynamic and, therefore, must be communicated to the drivers. *See* Exhibit E at 2-3.

53.   RideCo "continuously track[s], in real-time, by the at least one specifically programmed computer processor, the current vehicle location and the current ride-sharing data to identify at least one condition which requires to re-assign the pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger to a second assigned vehicle." Upon information and belief, RideCo tracks its vehicles' location data in real-time, including using global positioning systems ("GPS"). For example, RideCo provides driver

details to its users via the RideCo application and tracks the location of the corresponding vehicle, as shown in the annotated screenshot below from Exhibit I at 34:
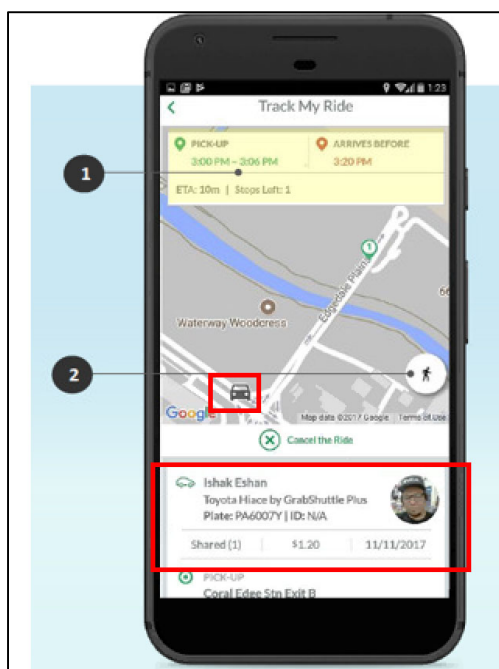
54.   Upon information and belief, RideCo uses the real-time current vehicle location and the current ride-sharing data to identify at least one condition which requires to re-assign the pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger to a second assigned vehicle. Riders and drivers get continuous updates regarding a dynamically changing route, which means that pairs of assigned virtual pickup and dropoff points may need to be reassigned based on the route changes. *See* Exhibit E at 3.

55.   RideCo "dynamically reassign[s], by the at least one specifically programmed computer processor, the assigned virtual pickup bus stop task from the first assigned vehicle to the second assigned vehicle." For example, riders and drivers get continuous updates regarding a dynamically changing route, which means that pairs of assigned virtual pickup and dropoff points may need to be reassigned based on the route changes. *See* Exhibit E at 3. As routes change, on information and belief, RideCo needs to reassign virtual pickup and dropoff points to different

vehicles. RideCo's Frequently Asked Questions webpage (https://www.rideco.com/faq) shows that RideCo determines in real-time a pick-up vehicle or potential vehicles at least in part based on current ride-share data, the closest virtual stop to both the pick-up and drop-off locations, and the current vehicle location data. RideCo dynamically routes those vehicles. *Id.*; *see* Exhibit E at 2.

56. RideCo "dynamically revis[es], by the at least one specifically programmed computer processor, the first updated route schedule of the first assigned vehicle to obtain a first revised updated route schedule, by removing the pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger." RideCo also "dynamically revis[es], by the at least one specifically programmed computer processor, a second updated route schedule of the second assigned vehicle to add a second pair of assigned virtual pickup and dropoff bus stop tasks related to the particular ride-sharing requesting passenger." On information and belief when RideCo dynamically routes its vehicles, taking into account current ride-share data, and current vehicle location data, RideCo updates route schedules by moving pairs of assigned virtual pickup and dropoff bus stop tasks from one route to another. *See* Exhibit E at 2.

57. RideCo "caus[e]s to electronically display, in real-time, via the at least one computer network, by the at least one specifically programmed computer processor, the first revised updated route schedule on the screen of the electronic computing device associated with the first assigned vehicle." For example, upon information and belief, RideCo displays routes and updated routes on a driver's electronic computing device, *e.g.,* cellular phone. RideCo's routes are dynamic and, therefore, must be communicated to the drivers. *See* Exhibit E at 2-3.

58. RideCo "caus[es] to electronically display, in real-time, via the at least one computer network, by the at least one specifically programmed computer processor, the second

updated route schedule on a screen of an electronic computing device associated with the second assigned vehicle." For example, upon information and belief, RideCo also displays routes and updated routes on a driver's electronic computing device, *e.g.,* cellular phone. RideCo's routes are dynamic and, therefore, must be communicated to the drivers. *See* Exhibit E at 2-3.

59. Upon information and belief, RideCo has been willfully infringing the '785 patent since at least early 2020 when it copied Via's product documentation directly from Via's website. Upon information and belief, RideCo was also aware of Via's bid protest to the LA Metro Transit Authority ("LA Metro") in 2020, including Via's allegations that RideCo infringes Via's patents. Via specifically informed LA Metro in its bid protest letter dated, May 26, 2020, that "RideCo is engaged in an unlawful direct infringement of the patent for virtual bus stop technology…held by Nomad [Transit LLC]'s parent company, Via." Exhibit K at 3-4. Further, Via asserted that, because LA Metro's RFP required all bidders to represent and warrant that they either owned or licensed the intellectual property required to complete the project, "RideCo's blatant infringement of Via's virtual bus stops patent should have disqualified it from participating as a qualified bidder in the RFP, let alone from winning the contract." *Id.* RideCo was at least willfully blind to its infringement of the '785 patent given its copying of Via's product documentation. At a minimum, RideCo has had actual knowledge of its infringement of the '785 patent since no later than the filing date of this Complaint.

60. RideCo's infringement of the '785 Patent was and continues to be willful and deliberate, entitling Via to enhanced damages.

61. RideCo's infringement of the '785 patent is exceptional and entitles Via to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

62.	RideCo's infringement of the '785 patent has caused irreparable harm (including the loss of market share) to Via and will continue to do so unless enjoined by this Court.

63.	RideCo indirectly infringes the '785 patent by inducing its municipal partners and consumer end-users to directly infringe the '785 patent. RideCo induces infringement by providing software (the RideCo application) that, when used by consumers as directed and intended by RideCo, causes those consumers to make, use, and practice the inventions claimed in the '785 patent.

64.	RideCo's infringement has caused and continues to cause damage to Via, and Via is entitled to recover damages sustained as a result of RideCo's wrongful acts in an amount subject to proof at trial.

COUNT II: Infringement of U.S. Patent No. 9,816,824

65.	Via incorporates by reference and re-alleges the foregoing paragraphs as if fully set forth herein.

66.	On November 14, 2017, the United States Patent and Trademark Office issued U.S. Patent No. 9,816,824, entitled "Continuously updatable computer-generated routes with continuously configurable virtual bus stops for passenger ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof" ("the '824 patent"). A true and correct copy of the '824 patent is attached hereto as Exhibit B.

67.	Via is the sole owner of all right, title, and interest in and to the '824 patent, with full and exclusive right to bring suit to enforce the '824 patent, including the right to recover for past damages and/or royalties.

68.	The '824 patent claims priority to U.S. Provisional Application No. 62/194,651 filed on July 20, 2015.

69.   The '824 patent is valid and enforceable.

70.   The inventions disclosed in the '824 patent enable one to transport multiple riders sharing rides in multiple vehicles while being able to dynamically change virtual bus stop locations, pick-up and drop-off locations, vehicle and rider assignments, and vehicle routes. For example, in some embodiments, the invention is related to continuously updatable computer-generated routes with continuously configurable virtual bus stops for ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof.

71.   The '824 patent addresses a technical problem. Mass public transit is typically based on rigid schedules, fixed stops and fixed routes. It is also often very crowded, requires riders to wait long periods of time for busses, and may require riders to walk a significant distance from their desired origination or destination points to fixed-route bus stops. Furthermore, door-to-door ridesharing applications do not optimize routes to, for example, avoid making a significant detour to pick-up and drop-off other riders. They are also more expensive for each user and do not utilize virtual bus stops such that riders walk to and from dynamically designated locations to further optimize each riders' and vehicles' route time and efficiency, taking into account multiple variables, such as traffic speeds, street closures, turn restrictions, and one-way streets.

72.   The '824 patent claims specific ways to solve these problems with the use of virtual bus stops as dynamically determined and selected pick-up and drop-off points that users can walk to near their origination point and destination point, by dynamically and simultaneously analyzing various factors for all riders, routes, and vehicles, and by dynamically routing riders and vehicles using innovative algorithms, tools, and application programming interfaces.

73.   In particular, Claim 1 of the '824 patent recites, among other things, "receiving a ride-sharing request" that includes "origin location data" and "destination location data" and recites "receiving current vehicle location data for a plurality of ride-sharing vehicles" including GPS information. The claim further recites, among other things, "accessing a memory that stores locations of a plurality of virtual bus stops" and "accessing current ride-sharing data representative of current routes of the plurality of ride-sharing vehicles and current virtual bus stops associated with a plurality of passengers who are currently riding in the plurality of ride-sharing vehicles." The clam recites, among other things, using that "current ride-sharing data" to determine which ride-sharing vehicle can pick up the requesting user, where the vehicles are already carrying other riders. Finally, among other things, the claim recites "assigning the particular vehicle and a pair of associated virtual bus stops for picking up and dropping off the user requesting a ride," "updating the existing route schedule of the particular vehicle," and electronically displaying the updated route on a screen visible to the driver in the vehicle.

74.   RideCo has infringed and continues to infringe, directly and/or indirectly, the '824 patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and operating within the United States without authority its RideCo application and services.

75.   RideCo's application and service infringes at least Claim 1 of the '824 patent at least in the exemplary manner described below, which is not intended to limit Via's right to modify the chart or allege that other activities of RideCo infringe the identified claims or any other claims of the '824 patent or any other patents.

76.   RideCo offers and performs "[a] computer-implemented method," as explained in Paragraph 38, incorporated here by reference.

77.   RideCo's application has "a non-transient memory, electronically storing particular computer executable program code; and at least one computer processor, as explained in Paragraphs 39-40, incorporated here by reference.

78.   RideCo "receiv[es] a ride-sharing request from a first electronic computing device operated by a user, wherein the ride-sharing request includes origin location data identifying a user-identified origin point and destination location data identifying a user-requested destination point," as explained in Paragraph 39, incorporated here by reference.

79.   RideCo "receiv[es] current vehicle location data for a plurality of ride-sharing vehicles traveling within a geographic locale, wherein the current vehicle location data includes global positioning system (GPS) data generated by at least one GPS component of at least one second electronic computing device associated with each ride-sharing vehicle," as explained in Paragraph 43, incorporated here by reference.

80.   RideCo "access[es] a memory that stores locations of a plurality of virtual bus stops associated with the geographic locale, wherein each virtual bus stop corresponds to a geographic location point within the geographic locale at which a user can be picked up or drop-off by a ride-sharing vehicle," as explained in Paragraphs 40-41, incorporated here by reference.

81.   RideCo "access[es] current ride-sharing data representative of current routes of the plurality of ride-sharing vehicles and current virtual bus stops associated with a plurality of passengers who are currently riding in the plurality of ride-sharing vehicles," as explained in Paragraph 44, incorporated here by reference.

82.   RideCo "determin[es] from among the plurality of ride-sharing vehicles a particular vehicle which can pick up the user, wherein at a time of determining, the particular ride-sharing vehicle is carrying other passengers along an existing route schedule and wherein the determining

the particular vehicle is based on at least a portion of the current ride-sharing data including the current virtual bus stops, the current vehicle location data, the origin location data, and the destination location data," as explained in Paragraphs 46-48, incorporated here by reference.

83.   RideCo "assign[s] the particular vehicle and a pair of associated virtual bus stops for picking up and dropping off the user requesting a ride, the virtual bus stop for picking up the user being at least a block away from the point of origin of the user." For example, RideCo states that its virtual stops are within a 5-minute walk of the user's location or destination, as explained for example in Paragraphs 42 and 48-49, and city blocks take far less than 5 minutes to walk. *See, e.g.*, https://www.nytimes.com/2006/09/17/nyregion/thecity/17fyi.html ("[Y]ou should figure an uptown-downtown walk at about one minute per block.").

84.   RideCo "updat[es] the existing route schedule of the particular vehicle by inserting the pair of the assigned virtual pick-up bus stop and virtual drop off bus stop into the existing route schedule," as explained in Paragraph 50, incorporated here by reference.

85.   RideCo "electronically display[s] on a screen of the at least one second electronic computing device associated with the vehicle an updated route including the pair of virtual bus stops assigned to the user," as explained in Paragraph 51, incorporated here by reference.

86.   Upon information and belief, RideCo committed the foregoing infringing activities without authority or license from Via and with notice of the '824 patent.

87.   Upon information and belief, RideCo has been willfully infringing the '824 patent since at least early 2020 when it copied Via's product documentation directly from Via's website. Upon information and belief, RideCo was also aware of Via's bid protest to the LA Metro Transit Authority in 2020, including Via's allegations that RideCo infringes Via's '785 patent, which is a parent patent of the '824 patent and also involves Via's patented virtual bus stop technology.

RideCo was at least willfully blind to its infringement of the '824 patent because of, on information and belief, its knowledge of Via's allegations of infringement for the related '785 patent. At a minimum, RideCo has had actual knowledge of its infringement of the '824 patent since no later than the filing date of this Complaint.

88.   RideCo's infringement of the '824 patent was and continues to be willful and deliberate, entitling Via to enhanced damages.

89.   RideCo's infringement of the '824 patent is exceptional and entitles Via to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

90.   RideCo's infringement of the '824 patent has caused irreparable harm (including the loss of market share) to Via and will continue to do so unless enjoined by this Court.

91.   RideCo indirectly infringes the '824 patent by inducing its municipal partners and consumer end-users to directly infringe the '824 patent. RideCo induces infringement by providing software (the RideCo application) that, when used by consumers as directed and intended by RideCo, causes those consumers to make, use, and practice the inventions claimed in the '824 patent.

92.   RideCo's infringement has caused and continues to cause damage to Via, and Via is entitled to recover damages sustained as a result of RideCo's wrongful acts in an amount subject to proof at trial.

COUNT III: Infringement of U.S. Patent No. 10,197,411

93.   Via incorporates by reference and re-alleges the foregoing paragraphs as if fully set forth herein.

94.   On February 5, 2019, the United States Patent and Trademark Office issued U.S. Patent No. 10,197,411, entitled "Continuously updatable computer-generated routes with continuously configurable virtual bus stops for passenger ride-sharing of a fleet of ride-sharing

vehicles and computer transportation systems and computer-implemented methods for use thereof" ("the '411 patent"). A true and correct copy of the '411 patent is attached hereto as Exhibit C.

95.   Via is the sole owner of all right, title, and interest in and to the '411 patent, with full and exclusive right to bring suit to enforce the '411 patent, including the right to recover for past damages and/or royalties.

96.   The '411 patent claims priority to U.S. Provisional Application No. 62/194,651 filed on July 20, 2015.

97.   The '411 patent is valid and enforceable.

98.   The inventions disclosed in the '411 patent enables one to transport multiple riders sharing rides in multiple vehicles while being able to dynamically change virtual bus stop locations, pick-up and drop-off locations, vehicle and rider assignments, and vehicle routes. For example, in some embodiments, the invention is related to continuously updatable computer-generated routes with continuously configurable virtual bus stops for ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof.

99.   The '411 patent addresses a technical problem. Mass public transit is typically based on rigid schedules, fixed stops and fixed routes. It is also often very crowded, requires riders to wait long periods of time for buses, and may require riders to walk a significant distance from their desired origination or destination points to fixed-route bus stops. Furthermore, door-to-door ridesharing applications do not optimize routes to, for example, avoid making a significant detour to pick up and drop off other riders. They are also more expensive for each user and do not utilize virtual bus stops such that riders walk to and from dynamically designated locations to further

optimize each riders' and vehicles' route time and efficiency, taking into account multiple variables, such as traffic speeds, street closures, turn restrictions, and one-way streets.

100.   The '411 patent claims specific ways to solve these problems with the use of virtual bus stops as dynamically determined and selected pick-up and drop-off points that users can walk to near their origination point and destination point, by dynamically and simultaneously analyzing various factors for all riders, routes, and vehicles, and by dynamically routing riders and vehicles using innovative algorithms, tools, and application programming interfaces.

101.   In particular, Claim 1 of the '411 patent recites, among other things, "a communications interface" that receives a request that includes information about the users location and desired destination and at least one processor that receives information from the communications interface and is programmed to do the following things: "determine, based on current locations of multiple ride-share vehicles and the received request, a rideshare vehicle to pick up the first user," "select, based on the current travel route of the rideshare vehicle, virtual bus stops for the identified rideshare vehicle," "assign the rideshare vehicle" to pick up and drop off the first user at virtual bus stops, "generate a first time-estimation for the rideshare vehicle to arrive at the first virtual bus stop," "continuously track…a current location of the ride share vehicle prior to arrival at the first virtual bus stop," "generate an updated time-estimation," "cancel the assignment of the rideshare vehicle when the updated time-estimation differs from the first time-estimation by more than a predefined threshold," and "reassign another rideshare vehicle to pick up the first user form the first virtual bus stop."

102.   RideCo has infringed and continues to infringe, directly and/or indirectly, the '411 patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making,

using, offering to sell, selling, and operating within the United States without authority its RideCo application and services.

103.   RideCo's application and service infringes at least Claim 1 of the '411 patent at least in the exemplary manner described below, which is not intended to limit Via's right to modify the chart or allege that other activities of RideCo infringe the identified claims or any other claims of the '411 patent or any other patents.

104.   RideCo's application is "[a] system for routing a rideshare vehicle." For example, RideCo "provide[s] on-demand shared rides in dynamically routed buses, vans and cars." https://blog.rideco.com/about.

105.   RideCo's application is "a communications interface configured to receive, from a first mobile communications device of a first user, a request for a rideshare, wherein the request includes information associated with a current location of the first user and a first desired destination at least one processor configured to receive information from the communications interface," as explained in Paragraphs 38-39, incorporated here by reference.

106.   RideCo "determine[s], based on current locations of multiple rideshare vehicles and the received request, a rideshare vehicle to pick up the first user," as explained in Paragraph 46-48, incorporated here by reference.

107.   RideCo "select[s] based on the current travel route of the rideshare vehicle, virtual bus stops for the identified rideshare vehicle, including a first virtual bus stop for picking up the first user and a second virtual bus stop for dropping off the first user, and wherein the first virtual bus stop is at a first location at least a block away from the current location of the first user and the second virtual bus stop is at a second location differing from the first desired destination," as explained in Paragraphs 48-50 incorporated here by reference.

108.   RideCo "assign[s] the rideshare vehicle to pick up the first user from the first virtual bus stop and to drop off the first user at the second virtual bus stop," as explained in Paragraph 48-49, incorporated here by reference.

109.   RideCo "generate[s] a first time-estimation for the rideshare vehicle to arrive at the first virtual bus stop for picking up the first user," as explained in Paragraphs 43 and 46-47, incorporated here by reference.

110.   RideCo "cancel[s] the assignment of the rideshare vehicle when the updated time-estimation differs from the first time-estimation by more than a predefined threshold; and reassign another rideshare vehicle to pick up the first user from the first virtual bus stop." For example, RideCo re-routes a new vehicle if a first vehicle is delayed, such as from being stuck in traffic.

HOW IS RIDECO DIFFERENT FROM PUBLIC TRANSIT?

With RideCo, your fares cost more than public transit, but significantly less than taxi and even UberX. It is personalized express service, which means there are no transfers and you choose when and where you want to be picked up and dropped off. RideCo's technology ensures that your ride will be fast, without ever being too crowded. This is because the vehicles' routes, stops and times are dynamic based on passenger demand. Our technology platform builds optimized routes for our driver partners based on passenger demand and location. These routes are adaptive—if traffic delays one car, another is re-routed to keep things moving on schedule.

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https://www.rideco.com/faq (emphasis added). RideCo also "guarantee[s] 'arrive-by'" time for its riders "to facilitate connection with the rail schedule." https://gohrt.com/wp-content/uploads/2019/12/RideCo-Overview.pdf. RideCo states that "[a] guaranteed 'arrive-by' time is provided to riders constrained to shift start/end times." Exhibit E at 2. *See also* Exhibit 2 at 17:

Coordinating with rail and bus
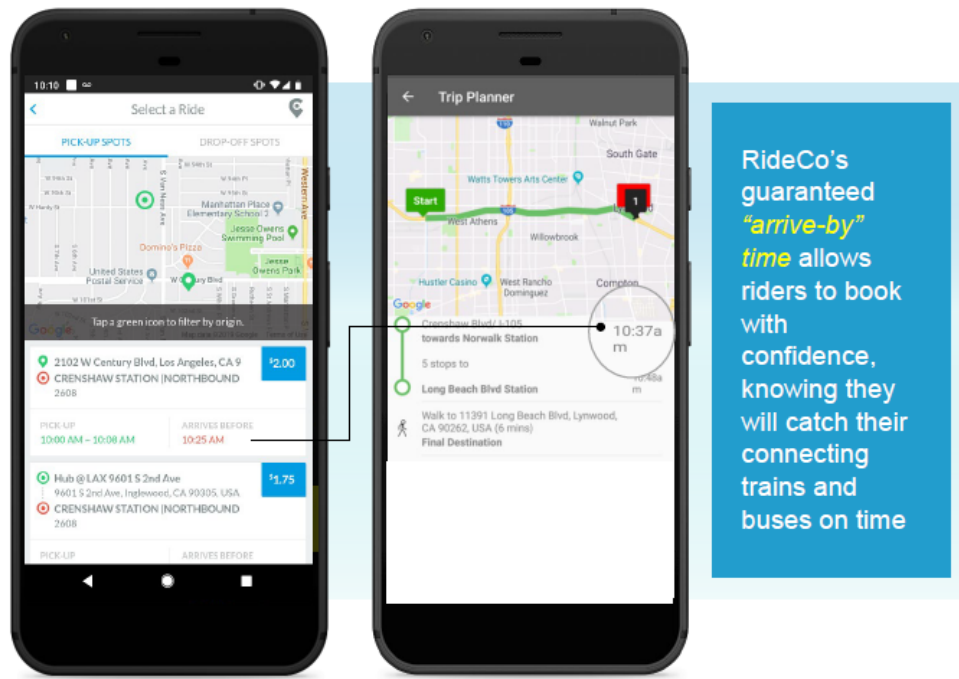
Furthermore, "RideCo handles last minute emergencies such as vehicle breakdowns," and RideCo "no longer [has] to manually reschedule rides and [] passengers are still picked up with little or no delay." Exhibit G at 2.

111.   Upon information and belief, RideCo has been willfully infringing the '411 patent since at least early 2020 when it copied Via's product documentation directly from Via's website. Upon information and belief, RideCo was also aware of Via's bid protest to the LA Metro Transit Authority in 2020, including Via's allegations that RideCo infringes Via's '785 patent, which is a parent patent of the '411 patent and also involves Via's patented virtual bus stop technology. RideCo was at least willfully blind to its infringement of the '411 patent because of, on information and belief, its knowledge of Via's allegations of infringement for the related '785 patent. At a minimum, RideCo has had actual knowledge of its infringement of the '824 patent since no later than the filing date of this Complaint.

112.   RideCo's infringement of the '411 patent was and continues to be willful and deliberate, entitling Via to enhanced damages.

113.   RideCo's infringement of the '411 patent is exceptional and entitles Via to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

114.   RideCo's infringement of the '411 patent has caused irreparable harm (including the loss of market share) to Via and will continue to do so unless enjoined by this Court.

115.   RideCo indirectly infringes the '411 patent by inducing its municipal partners and consumer end-users to directly infringe the '411 patent. RideCo induces infringement by providing software (the RideCo application) that, when used by consumers as directed and intended by RideCo, causes those consumers to make, use, and practice the inventions claimed in the '411 patent.

116.   RideCo's infringement has caused and continues to cause damage to Via, and Via is entitled to recover damages sustained as a result of RideCo's wrongful acts in an amount subject to proof at trial.

COUNT IV: Infringement of U.S. Patent No. 10,677,604

117.   Via incorporates by reference and re-alleges the foregoing paragraphs as if fully set forth herein.

118.   On June 9, 2020, the United States Patent and Trademark Office issued U.S. Patent No. 10,677,604, entitled "Continuously updatable computer-generated routes with continuously configurable virtual bus stops for passenger ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof" ("the '604 patent"). A true and correct copy of the '604 patent is attached hereto as Exhibit D.

119. Via is the sole owner of all right, title, and interest in and to the '604 patent, with full and exclusive right to bring suit to enforce the '604 patent, including the right to recover for past damages and/or royalties.

120. The '604 patent claims priority to U.S. Provisional Application No. 62/194,651 filed on July 20, 2015.

121. The '604 patent is valid and enforceable.

122. The inventions disclosed in the '604 patent enable one to transport multiple riders sharing rides in multiple vehicles while being able to dynamically change virtual bus stop locations, pick-up and drop-off locations, vehicle and rider assignments, and vehicle routes. For example, in some embodiments, the invention is related to continuously updatable computer-generated routes with continuously configurable virtual bus stops for ride-sharing of a fleet of ride-sharing vehicles and computer transportation systems and computer-implemented methods for use thereof.

123. The '604 patent addresses a technical problem. Mass public transit is typically based on rigid schedules, fixed stops and fixed routes. It is also often very crowded, requires riders to wait long periods of time for buses, and may require riders to walk a significant distance form their desired origination or destination points to fixed-route bus stops. Furthermore, door-to-door ridesharing applications do not optimize routes to, for example, avoid making a significant detour to pick up and drop off other riders. They are also more expensive for each user and do not utilize virtual bus stops such that riders walk to and from dynamically designated locations to further optimize each riders' and vehicles' route time and efficiency, taking into account multiple variables, such as traffic speeds, street closures, turn restrictions, and one-way streets.

124.   The '604 patent claims specific ways to solve these problems with the use of virtual bus stops as dynamically determined and selected pick-up and drop-off points that users can walk to near their origination point and destination point, by dynamically and simultaneously analyzing various factors for all riders, routes, and vehicles, and by dynamically routing riders and vehicles using innovative algorithms, tools, and application programming interfaces.

125.   In particular, Claim 1 of the '604 patent recites, among other things, "a memory for storing historic ridesharing demand data" and "at least one processor configured to access the memory and to" do the following things: "receive ride requests of a plurality of users headed to differing destinations" where each request includes an origin and destination point, "receive current vehicle location data for a plurality of ridesharing vehicles" including GPS data, "determine, based on the current vehicle location data and the received ride requests, a ridesharing vehicle to pick up at least one of the users," "select virtual bus stops for the ridesharing vehicle," "use the historic ridesharing demand data to identify at least one high demand area," and "direct the ridesharing vehicle to travel along the selected route."

126.   RideCo has infringed and continues to infringe, directly and/or indirectly, the '604 patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling, and operating within the United States without authority its RideCo application and services.

127.   RideCo's application and service infringes at least Claim 1 of the '604 patent at least in the exemplary manner described below, which is not intended to limit Via's right to modify the chart or allege that other activities of RideCo infringe the identified claims or any other claims of the '604 patent or any other patents.

128.   RideCo offers and operates "[a] system for routing a ridesharing vehicle." For example, RideCo "provide[s] on-demand shared rides in dynamically routed buses, vans and cars." https://blog.rideco.com/about.

129.   RideCo "store[s] historic ridesharing demand data associated with a geographic locale." RideCo accesses the stored historic ridesharing demand data. For example, RideCo "ensur[es]" riders are "sharing a ride," and "builds optimized itineraries" for drivers that provides "them the specific sequence of passenger pick-ups and drop-offs." The "optimized itineraries increase passenger ride-sharing and reduce vehicle idle-time." https://rideco.com/faq.

<div style="border:1px solid black; padding:8px;">

HOW CAN THE RIDE PRICE BE SO LOW?

Because you are sharing a ride, the cost ends up being split a number of ways. RideCo's technology builds optimized itineraries for our driver partners —providing them the specific sequence of passenger pick-ups and drop-offs that ensures your ride will be fast, without it ever being too crowded. These optimized itineraries increase passenger ride-sharing and reduce vehicle idle-time. The result is more affordable rides for passengers and more income for our driver partners. It's a win-win for everyone.

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Historic demand data would help to ensure riders share their ride and to optimize these itineraries, and such historic demand data would need to be stored in memory to be accessed when needed. Exhibit H.

130.   RideCo "receiv[es] ride requests of a plurality of users headed to differing destinations, wherein each ride request includes an origin point and a destination point," as explained in Paragraph 39, incorporated here by reference.

131.   RideCo "receiv[es] current vehicle location data for a plurality of ridesharing vehicles within a geographic locale, where the current vehicle location data includes global positioning system (GPS) data generated by at least one GPS component of at least one electronic computing device associated with each ridesharing vehicle," as explained in Paragraph 43, incorporated here by reference.

132.   RideCo "determin[es], based on the current vehicle location data and the received ride requests, a ridesharing vehicle to pick up at least one of the users," as explained in Paragraph 46-48, incorporated here by reference.

133.   RideCo "select[s] virtual bus stops for the ridesharing vehicle, including a first virtual bus stop for picking up the at least one user and a second virtual bus stop for dropping off the at least one user," as explained in Paragraph 48-49, incorporated here by reference.

134.   RideCo "us[es] the historic ridesharing demand data to identify at least one high demand area in the geographical locale." For example, RideCo "ensur[es]" riders are "sharing a ride," and "builds optimized itineraries" for drivers that provides "them the specific sequence of passenger pick-ups and drop-offs." The "optimized itineraries increase passenger ride-sharing and reduce vehicle idle-time." https://rideco.com/faq.

HOW CAN THE RIDE PRICE BE SO LOW?

Because you are sharing a ride, the cost ends up being split a number of ways. RideCo's technology builds optimized itineraries for our driver partners —providing them the specific sequence of passenger pick-ups and drop-offs that ensures your ride will be fast, without it ever being too crowded. These optimized itineraries increase passenger ride-sharing and reduce vehicle idle-time. The result is more affordable rides for passengers and more income for our driver partners. It's a win-win for everyone.

Traveling through historically higher demand areas helps to ensure riders share their ride and to optimize these itineraries.

135.   RideCo "select[s] a route from the first virtual bus stop to the second virtual bus stop, wherein the selected route passes through the at least one identified high demand area." For example, RideCo "ensur[es]" riders are "sharing a ride," and "builds optimized itineraries" for drivers that provides "them the specific sequence of passenger pick-ups and drop-offs." The "optimized itineraries increase passenger ride-sharing and reduce vehicle idle-time." https://rideco.com/faq.

136.   Traveling through historically higher demand areas ensures riders share their ride and to optimize these itineraries.

137.   RideCo "direct[s] the ridesharing vehicle to travel along the selected route for picking up the at least one user at the first virtual bus stop and dropping off the at least one user at the second virtual bus stop," as explained in Paragraph 50-51, incorporated here by reference.

138.   Upon information and belief, RideCo has been willfully infringing the '604 patent since at least 2020 after it copied Via's product documentation directly from Via's website in 2019. Upon information and belief, RideCo was also aware of Via's bid protest to the LA Metro Transit Authority in 2020, including Via's allegations that RideCo infringes Via's '785 patent, which is a parent patent of the '604 patent and also involves Via's patented virtual bus stop technology. RideCo was at least willfully blind to its infringement of the '604 patent because of, on information and belief, its knowledge of Via's allegations of infringement for the related '785 patent. At a minimum, RideCo has had actual knowledge of its infringement of the '604 patent since no later than the filing date of this Complaint.

139.   RideCo's infringement of the '604 Patent was and continues to be willful and deliberate, entitling Via to enhanced damages.

140.   RideCo's infringement of the '604 patent is exceptional and entitles Via to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

141.   RideCo's infringement of the '604 patent has caused irreparable harm (including the loss of market share) to Via and will continue to do so unless enjoined by this Court.

142. RideCo indirectly infringes the '604 patent by inducing its municipal partners and consumer end-users to directly infringe the '604 patent. RideCo induces infringement by providing software (the RideCo application) that, when used by consumers as directed and intended by RideCo, causes those consumers to make, use, and practice the inventions claimed in the '604 patent.

143. RideCo's infringement has caused and continues to cause damage to Via, and Via is entitled to recover damages sustained as a result of RideCo's wrongful acts in an amount subject to proof at trial.

<u>**PRAYER FOR RELIEF**</u>

WHEREFORE, Via respectfully requests the following relief:

1. A judgment that RideCo has infringed, directly and indirectly, literally or under the doctrine of equivalents, one or more claims of the Asserted Patents in violation of 35 U.S.C. § 271, and that such infringement is willful;

2. An order preliminarily and permanently enjoining RideCo and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting on behalf of or in active concert or participation therewith, from further infringing;

3. An award of damages sufficient to compensate Via for RideCo's infringement under 35 U.S.C. § 284, and an enhancement of damages on account of RideCo's willful infringement;

4. A determination that this is an exceptional case under 35 U.S.C. § 285 and that Via be awarded attorneys' fees;

5. Costs and expenses in this action;

6. An award of prejudgment and post-judgment interest; and

7. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Via respectfully demands a trial by jury on all triable issues.

DATED: May 3, 2021

QUINN EMANUEL URQUHART & SULLIVAN, LLP

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